Tester 20618268

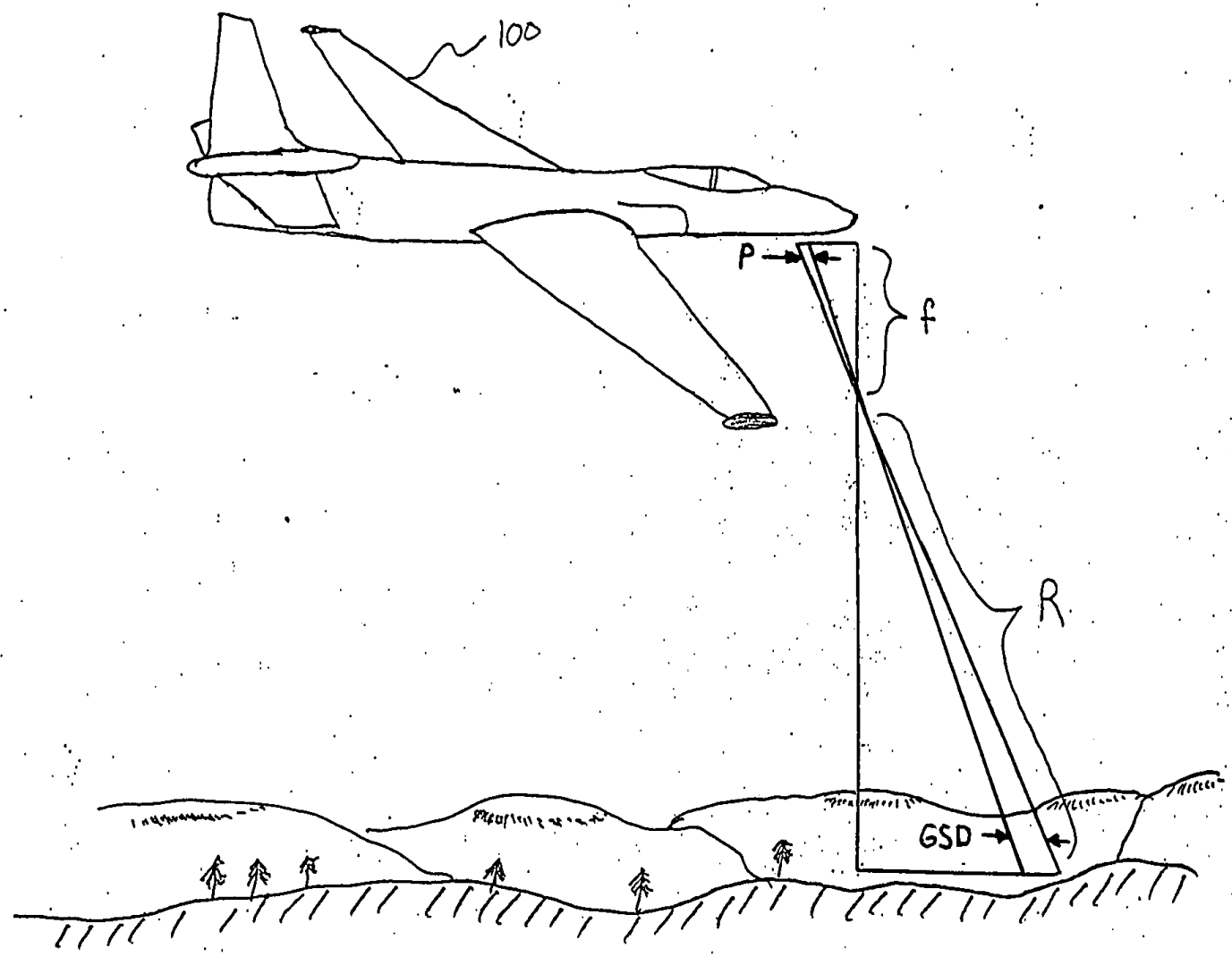

FIG. 1

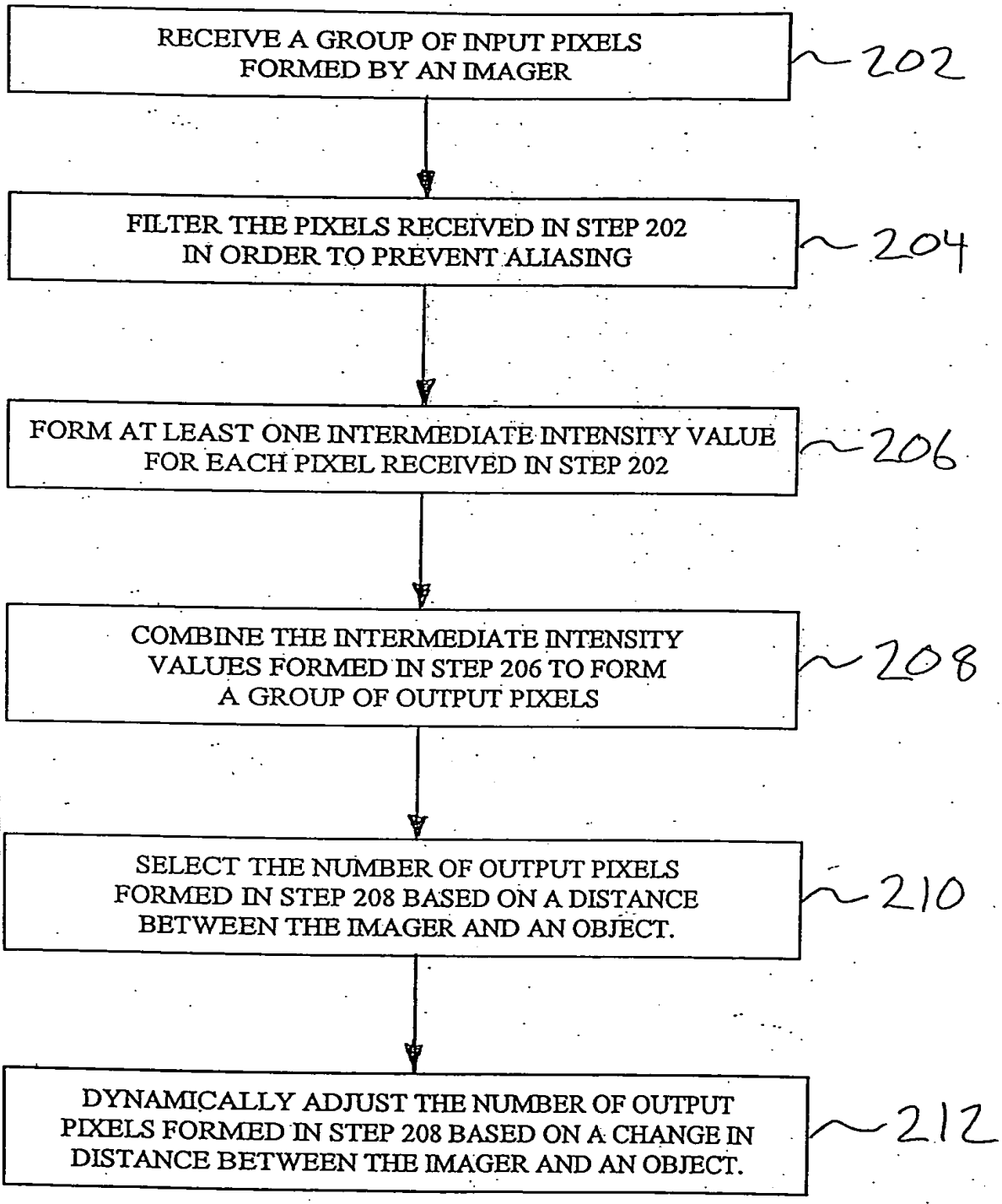
RECEIVE A GROUP OF INPUT PIXELS FORMED BY AN IMAGER
202
FILTER THE PIXELS RECEIVED IN STEP 202 IN ORDER TO PREVENT ALIASING
204
FORM AT LEAST ONE INTERMEDIATE INTENSITY VALUE FOR EACH PIXEL RECEIVED IN STEP 202
206
COMBINE THE INTERMEDIATE INTENSITY VALUES FORMED IN STEP 206 TO FORM A GROUP OF OUTPUT PIXELS
208
SELECT THE NUMBER OF OUTPUT PIXELS FORMED IN STEP 208 BASED ON A DISTANCE BETWEEN THE IMAGER AND AN OBJECT.
210
DYNAMICALLY ADJUST THE NUMBER OF OUTPUT PIXELS FORMED IN STEP 208 BASED ON A CHANGE IN DISTANCE BETWEEN THE IMAGER AND AN OBJECT.
212

FIG. 2

Patent Application

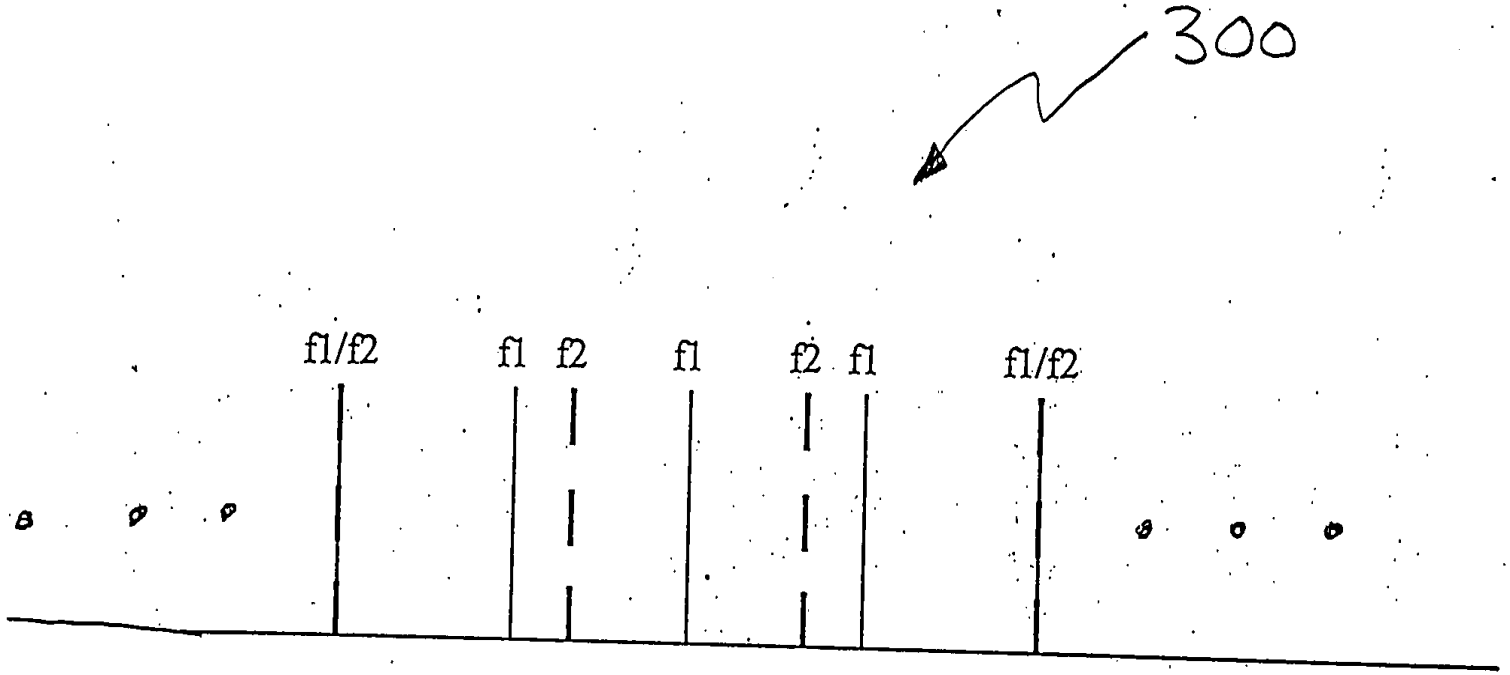

FIG. 3

Patent Application

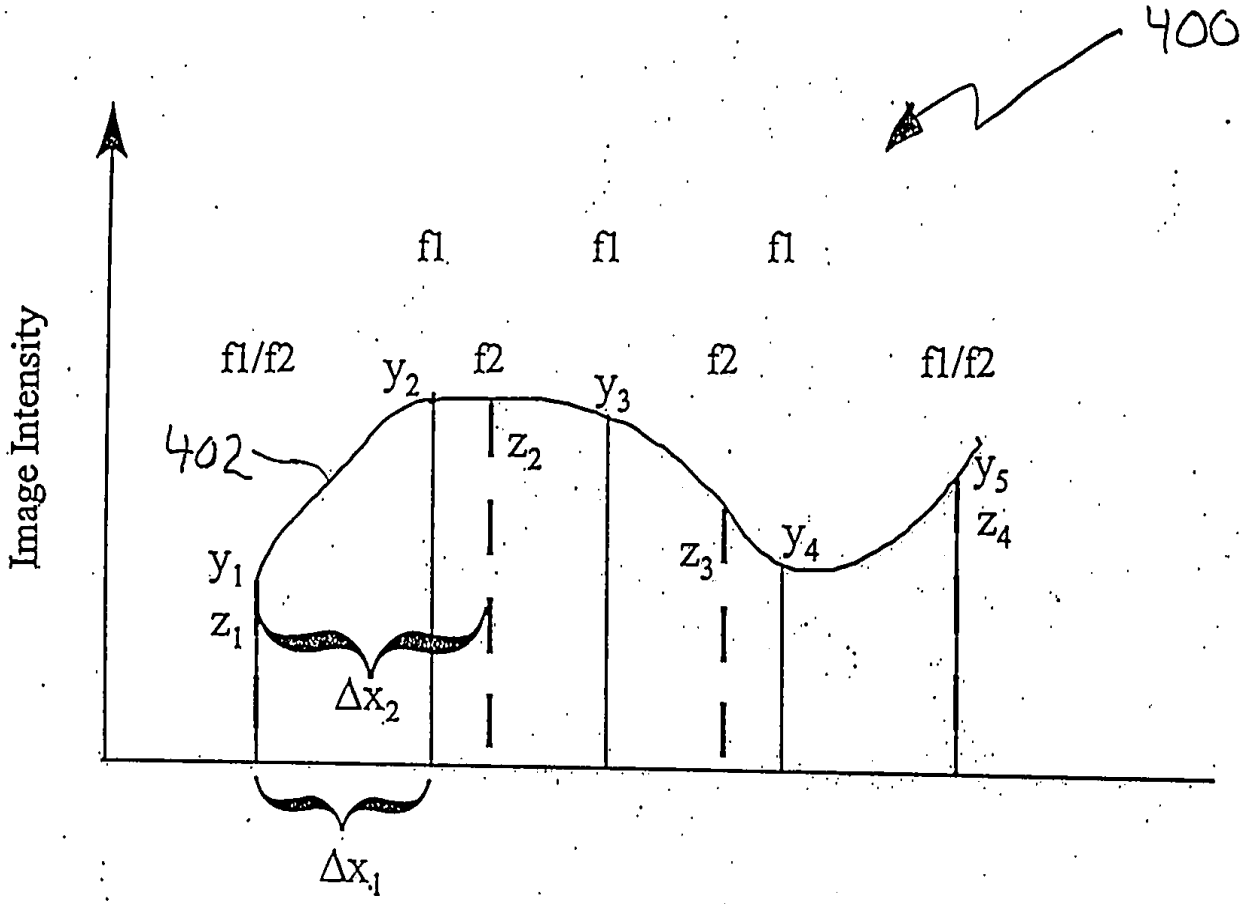

FIG. 4

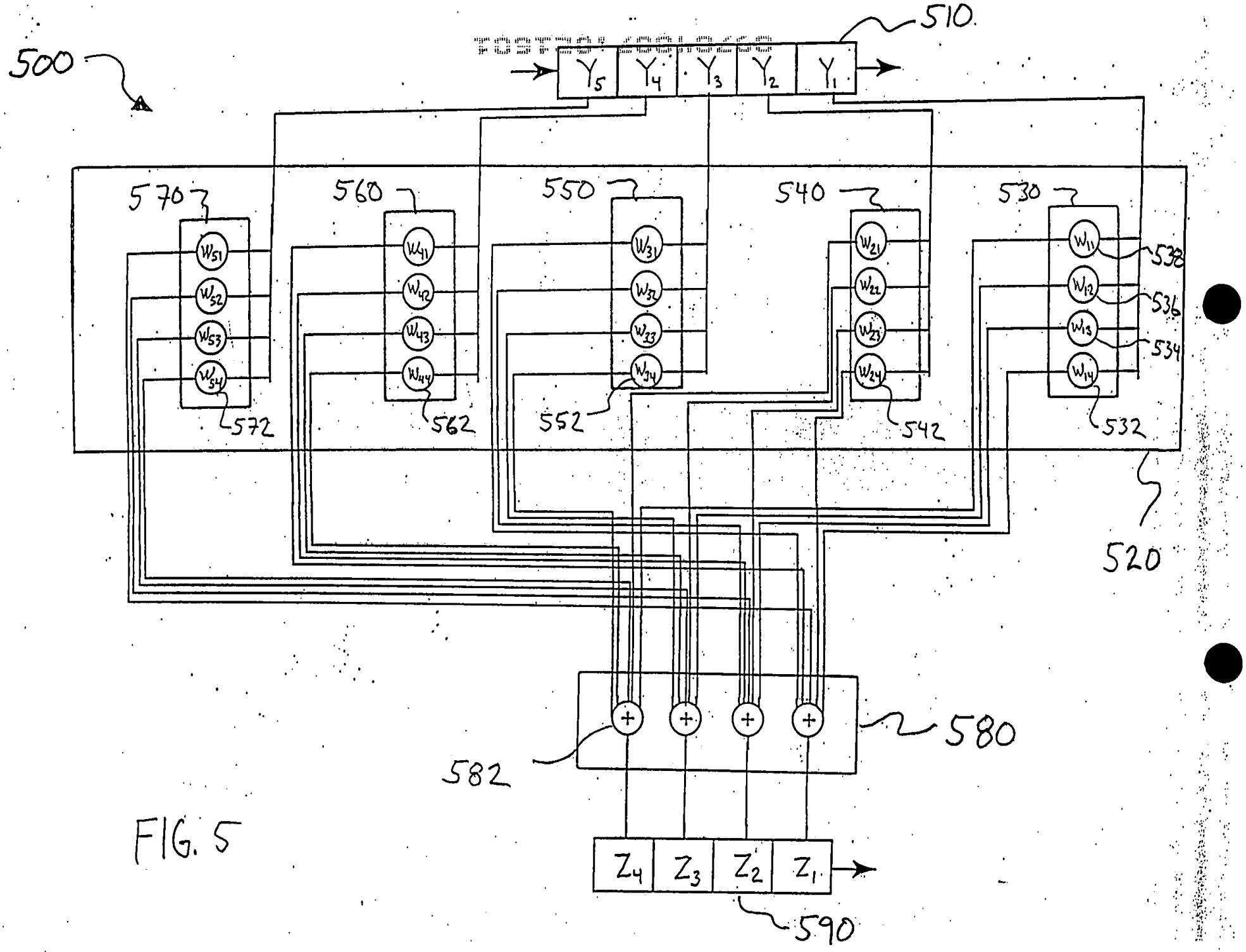
500
510
Y_5 Y_4 Y_3 Y_2 Y_1
570
560
550
540
530
W_{51} W_{52} W_{53} W_{54}
W_{41} W_{42} W_{43} W_{44}
W_{31} W_{32} W_{33} W_{34}
W_{21} W_{22} W_{23} W_{24}
W_{11} W_{12} W_{13} W_{14}
572
562
552
542
532
538
536
534
520
580
582
Z_4 Z_3 Z_2 Z_1
590

FIG. 5

PATENT APPLICATION

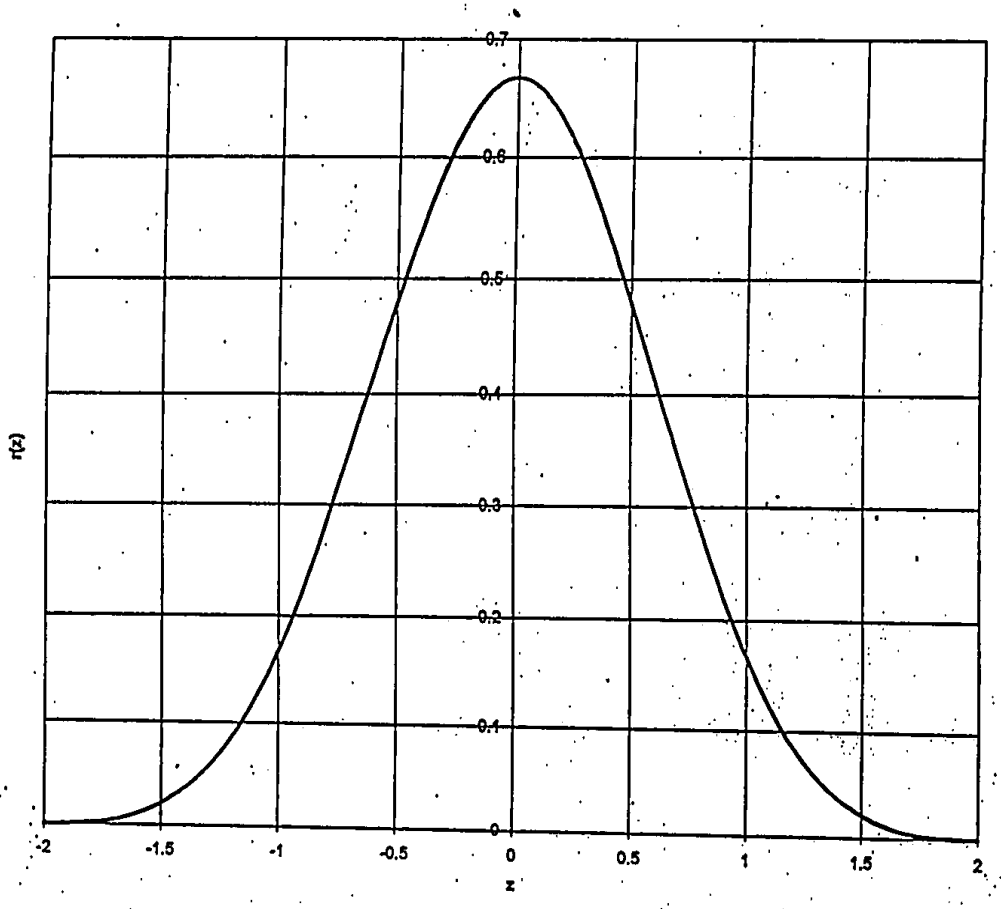

FIG. 6

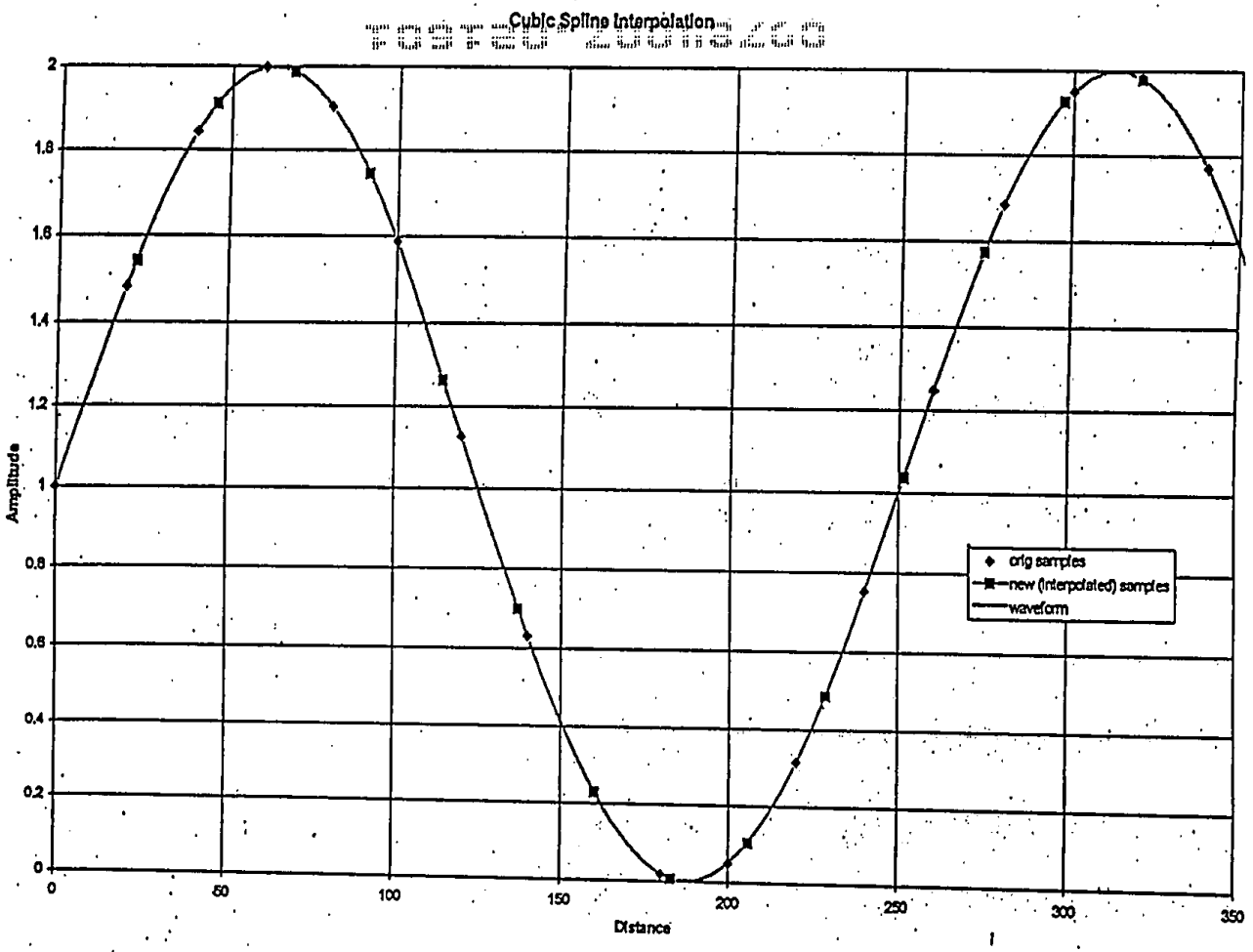
Cubic Spline Interpolation
Amplitude
Distance
orig samples
new (interpolated) samples
waveform
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
0
50
100
150
200
250
300
350

FIG. 7

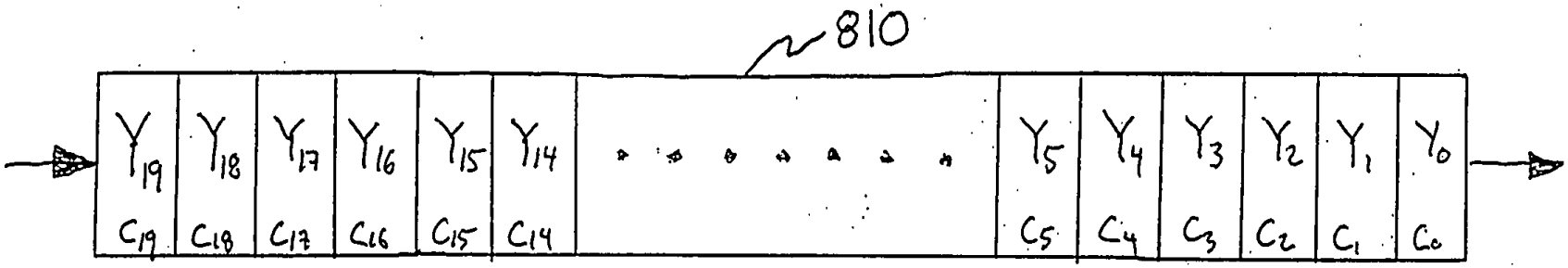

FIG. 8A

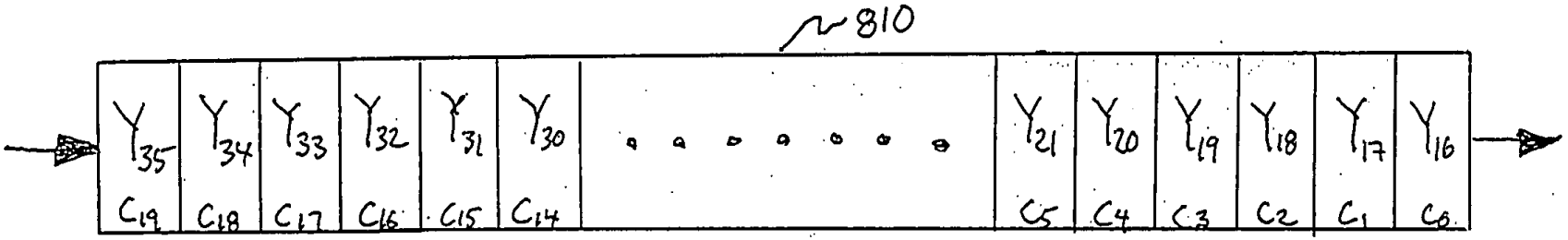

FIG. 8B

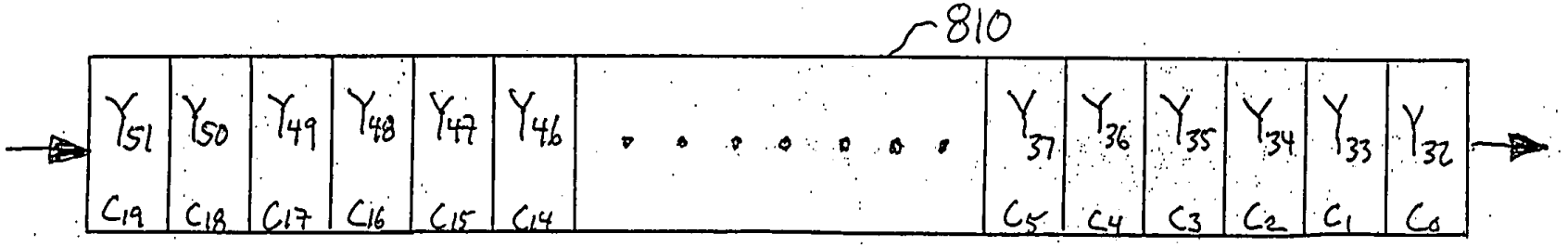

FIG. 8C

900

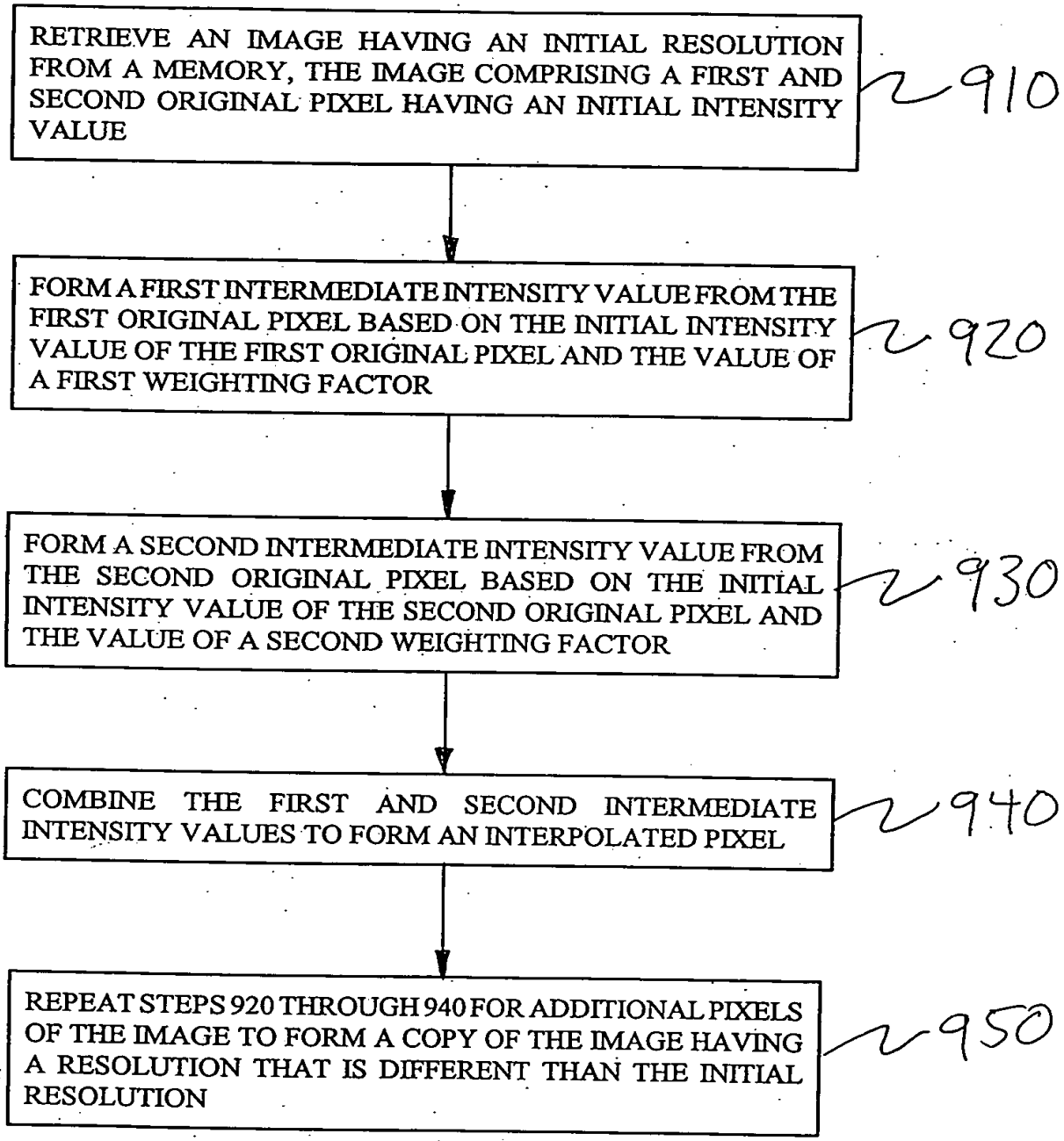
RETRIEVE AN IMAGE HAVING AN INITIAL RESOLUTION FROM A MEMORY, THE IMAGE COMPRISING A FIRST AND SECOND ORIGINAL PIXEL HAVING AN INITIAL INTENSITY VALUE
910
FORM A FIRST INTERMEDIATE INTENSITY VALUE FROM THE FIRST ORIGINAL PIXEL BASED ON THE INITIAL INTENSITY VALUE OF THE FIRST ORIGINAL PIXEL AND THE VALUE OF A FIRST WEIGHTING FACTOR
920
FORM A SECOND INTERMEDIATE INTENSITY VALUE FROM THE SECOND ORIGINAL PIXEL BASED ON THE INITIAL INTENSITY VALUE OF THE SECOND ORIGINAL PIXEL AND THE VALUE OF A SECOND WEIGHTING FACTOR
930
COMBINE THE FIRST AND SECOND INTERMEDIATE INTENSITY VALUES TO FORM AN INTERPOLATED PIXEL
940
REPEAT STEPS 920 THROUGH 940 FOR ADDITIONAL PIXELS OF THE IMAGE TO FORM A COPY OF THE IMAGE HAVING A RESOLUTION THAT IS DIFFERENT THAN THE INITIAL RESOLUTION
950

FIG. 9